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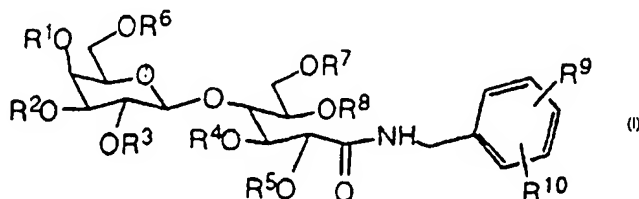
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(54) Title: BENZYL LACTOBIONAMIDES AS INHIBITORS OF SMOOTH MUSCLE CELL PROLIFERATION



(57) Abstract: This invention provides smooth muscle cell proliferation inhibitors of formula (I) having the structure or a pharmaceutically acceptable salt thereof.

WO 00/31092 A3

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07H13/04 C07H13/08 C07H11/00 A61K31/70 A61P9/00
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07H A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 96 14325 A (AMERICAN HOME PROD) 17 May 1996 (1996-05-17) cited in the application page 1, line 5 - line 9 claim 1	1,5,6,8, 9
A	US 5 008 247 A (MEINETSBERGER EIKE) 16 April 1991 (1991-04-16) column 8, line 4 - line 60 example 11 claim 1 & EP 0 312 086 A 19 April 1989 (1989-04-19) cited in the application	1,5,6,8, 9

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	OHNO, KOHJI ET AL: "Free-radical polymerization of a sugar residue-carrying styryl monomer with a lipophilic alkoxyamine initiator. Synthesis of a well-defined novel glycolipid" MACROMOL. CHEM. PHYS. (1998), 199(10), 2193-2197 , XP000787909 page 2193, left-hand column figure 1	1
A	OUARI, OLIVIER ET AL: "Synthesis and spin-trapping behavior of glycosylated nitrones" J. CHEM. SOC., PERKIN TRANS. 2 (1998), (10), 2299-2308 , XP002149958 page 2299, left-hand column, paragraph 1 page 2300, schemes 1 & 2	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 99/27774

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9614325 A	17-05-1996	US 5773420 A	30-06-1998
		AT 184283 T	15-09-1999
		AU 703338 B	25-03-1999
		AU 3935395 A	31-05-1996
		BR 9509586 A	23-12-1997
		CA 2204530 A	17-05-1996
		DE 69512081 D	14-10-1999
		DE 69512081 T	03-02-2000
		EP 0791004 A	27-08-1997
		ES 2136314 T	16-11-1999
		FI 971934 A	06-05-1997
		GR 3031731 T	29-02-2000
		HU 77757 A	28-07-1998
		JP 10508610 T	25-08-1998
		NZ 296037 A	28-05-1999
US 5008247 A	16-04-1991	DE 3734815 A	27-04-1989
		AT 101159 T	15-02-1994
		AU 2368688 A	20-04-1989
		CA 1331986 A	13-09-1994
		CS 9103957 A	16-09-1992
		DE 3887618 D	17-03-1994
		DK 572788 A,B,	15-04-1989
		EP 0312086 A	19-04-1989
		ES 2061592 T	16-12-1994
		FI 884697 A,B,	15-04-1989
		IE 63947 B	28-06-1995
		IL 87936 A	31-01-1993
		JP 1143890 A	06-06-1989
		JP 1885756 C	22-11-1994
		JP 6004667 B	19-01-1994
		ZA 8807641 A	26-07-1989